

Patent claims

1. A coated food paperboard (1), comprising one or several fibre material layers (2, 4, 5), and a heat-resistant polymeric coating (3) getting into contact with food, said coating (3) consisting of superimposed polymeric layers comprising an outer layer (6), the melting point of the polymer of which is at least 230 °C, and an inner layer (7) placed against the fibre material layer (5), to achieve adhesion between the coating and the fibre material, **characterized** in that the inner layer (7) comprises a first polymer with a melting point of at least 230 °C, blended with a second polymer which is an adhesive polymer with a melting point of 130 - 185 °C in a ratio of 85 - 97% of said first polymer and 3 - 15% of said second polymer.
2. Paperboard according to claim 1, **characterised** in that the polymer of the outer layer (6) and the one of the polymers of the inner layer (7) are of the same polymeric material.
3. Paperboard according to claim 2, **characterised** in that the outer layer (6) of the coating is polyethylene terephthalate, and the inner layer (7) is a mixture of polyethylene terephthalate and a terephthalate-based copolyester with a lower melting point.
4. Paperboard according to some of the preceding claims, **characterised** in that the total weight of the polymeric coating (3) is at most 25 g/m², preferably 15 - 22 g/m².
5. Paperboard according to claim 1, **characterised** in that the inner layer (7) of the coating further has blended in it fine mineral substance.
6. Paperboard according to claim 1, **characterised** in that the inner layer (7) comprises 80 - 90% of polymer with a melting point of at least 230 °C, 3 - 10% of polymer with a melting point of 130 - 185 °C, and 5 - 15% of mineral substance.
7. Paperboard according to claim 5 or 6, **characterised** in that the mineral substance is calcium carbonate.
8. Paperboard according to claim 7, **characterised** in that the outer layer (6) of the coating is polyethylene terephthalate and the inner layer (7) is a mixture of polyethylene terephthalate, a terephthalate-based copolymer with a lower melting point, and calcium carbonate.

9. Paperboard according to one of the claims 5 – 8, **characterised** in that the total weight of the coating (3) is at most 25 g/m^2 , preferably $13 - 22 \text{ g/m}^2$.

5 10. Paperboard according to one of the preceding claims, **characterised** in that the fibre material layers comprise a three-layer structure (2), in which the middlemost layer is a thicker layer (4) consisting of a mixture of chemical pulp and CTMP, the thinner layers (5) on both sides of it consisting substantially of pure chemical pulp.

10 11. A method for manufacturing a coated paperboard (1) according to one of the preceding claims, **characterised** in that the polymer forming the outer layer (6) of the coating and the polymeric mixture forming the inner layer (7) are coextruded together onto a moving paperboard web.

12. The use of the coated paperboard (1) according to one of the claims 1 – 10 as a heat-resistant oven board.

13. The use of the paperboard according to claim 12 as part of a consumer package shaped as a dish (8) for heatable food.

15 14. The use of the coated paperboard (1) according to one of the claims 1 – 10 as a liquid packaging board.

15. An oven dish (8), **characterised** in that it has been manufactured of the paperboard (1) according to one of the claims 1 – 10 so that the polymeric coating of the paperboard is attached to the interior surface of the dish (8).

20 16. An oven dish according to claim 15, **characterised** in that it has been manufactured of paperboard (1) by compression.

17. An oven dish according to claim 15, **characterised** in that it has been manufactured of paperboard (1) by folding and joint sealing the folds thus produced to the exterior surface of the dish.

25 18. A heatable food package, **characterised** in that it comprises the oven dish (8) according to one of the claims 15 – 17, food intended to be heated in the dish, and a removable protective cover or wrapping closing the dish.